



**SB05-03Q**

**30V, 500mA Rectifier**

**Applications**

- High frequency rectification (switching regulators, converters, choppers).

**Features**

- Low forward voltage ( $V_F \text{ max}=0.55\text{V}$ ).
- Fast reverse recovery time ( $t_{rr} \text{ max}=10\text{ns}$ ).
- Low switching noise.
- Low leakage current and high reliability due to highly reliable planar structure.
- Ultrasmall-sized package, permitting SB05-03Q-applied sets to be compact and slim.

**Absolute Maximum Ratings** at  $T_a=25^\circ\text{C}$

			unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	30	V
	Nonrepetitive Peak	$V_{RSM}$	35 V
Reverse Surge Voltage			
Average Output Current	$I_o$	500	mA
Surge Forward Current	$I_{FSM}$	3	A
Junction Temperature	$T_j$	-55 to +125	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to +125	$^\circ\text{C}$

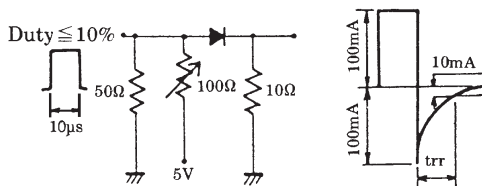
50Hz sine wave, 1 cycle

**Electrical Characteristics** at  $T_a=25^\circ\text{C}$

			min	typ	max	unit
Reverse Voltage	$V_R$	$I_R=150\mu\text{A}$	30			V
Forward Voltage	$V_F$	$I_F=500\text{mA}$			0.55	V
Reverse Current	$I_R$	$V_R=15\text{V}$			30	$\mu\text{A}$
Interterminal Capacitance	C	$V_R=10\text{V}, f=1\text{MHz}$		16		pF
Reverse Recovery Time	$t_{rr}$	$I_F=I_R=100\text{mA}$ , See specified Test Circuit.			10	ns
Thermal Resistance	$R_{th(j-a)}$			600		$^\circ\text{C/W}$

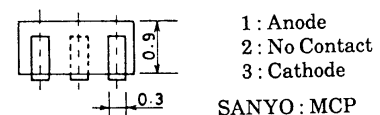
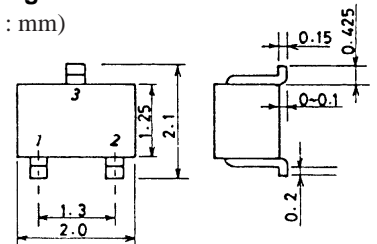
Marking : Q

**$t_{rr}$  Test Circuit**

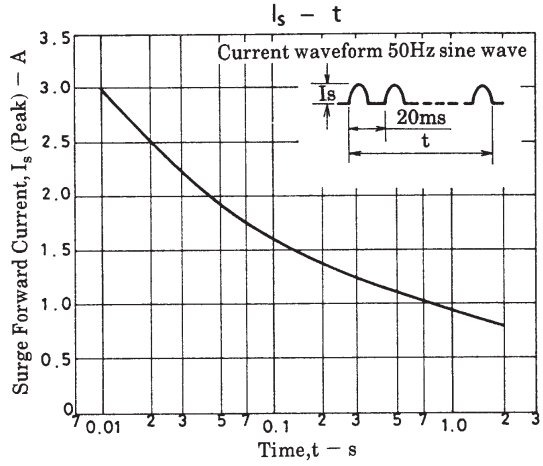
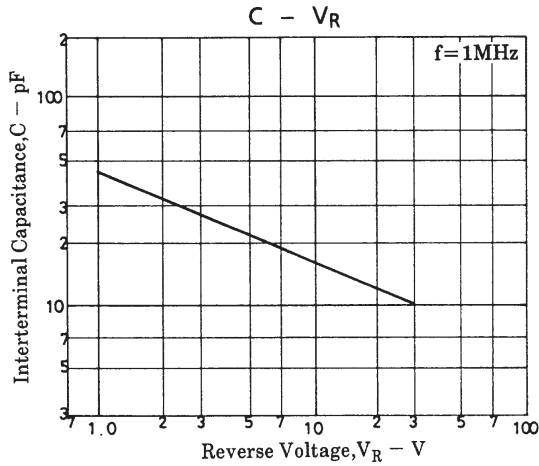
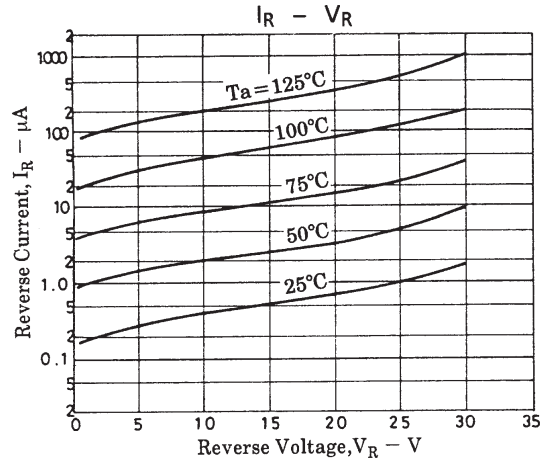
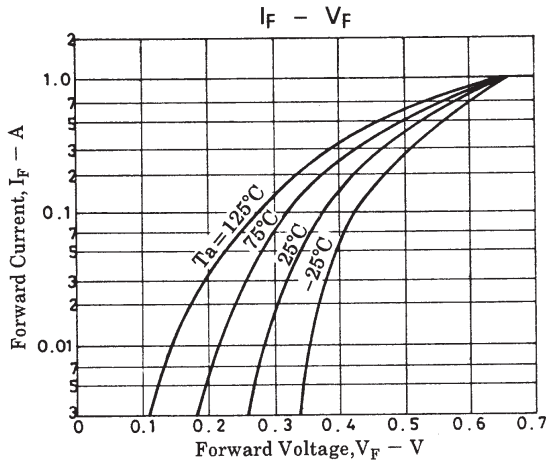


**Package Dimensions** 1197A

(unit : mm)



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